Claims: In the claims, please amend claims 12, 14-16, and 18-20. Additions to claims are indicated by underlining. Deletions to claims are indicated by strikeouts. Please cancel claims 1-11 in this amendment. Upon entry of this amendment, claims 12-22 will be pending.

Listing of Claims:

1. (Canceled)

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Currently Amended) A chip ~~for generating a feedback signal indicating intensity of illumination from a bulb of an optical scanner, the optical scanner including an imaging device, a light region of known color and a black region, the chip~~ comprising:

a processor, responsive to an output of ~~the~~ an imaging device, for determining light intensities in an image~~s~~ of ~~the~~ a light region and an image of a black region~~s, wherein the light and black regions are~~, with the light region and the black region located on a scan head body positioned within the optical scanner;

the processor ~~using~~ configured to use the image~~s~~ of the light region to provide at least one feedback signal indicating color channel intensity; and

the processor ~~using~~ configured to use the image~~s~~ of the black region to remove flare from the at least one feedback signal.

13. (Original) The chip of claim 12, wherein the processor locates the light and black regions prior to generating a feedback signal.

14. (Currently Amended) The chip of claim 12, wherein ~~each~~ the at least one feedback signal is determined as a function of average pixel intensity in the image of the light region ~~images~~ and average pixel intensity in the image of the black region ~~images~~.

15. (Currently Amended) The chip of claim 12, wherein the at least one feedback signal ~~X~~ of a color channel ~~is~~ corresponds to X determined as ~~by~~:

$X = aV_w - bV_b$

where V_w is measured pixel intensity in the image of the light region ~~images~~, V_b is measured pixel intensity in the image of the black region ~~images~~, and a and b are experimentally determined coefficients.

16. (Currently amended) A method of compensating for non-uniform illumination in an optical scanner, ~~the optical scanner including a bulb, a light region of known color and a black region, the method~~ comprising ~~the steps of~~:

using ~~the~~ a bulb to illuminate ~~the~~ a black region and a light region~~s~~;

wherein the light region and the black region~~s~~ are located on a scan head body positioned within the optical scanner;

generating images of the ~~illuminated~~ the light region and the black region~~s~~ illuminated by the bulb;

using an images of the light region to provide at least one feedback signal indicating color channel intensity; and

using ~~the~~ an image~~s~~ of the black region to remove flare from the at least one feedback signal.

17. (Original) The method of claim 16, wherein the optical scanner further includes a photodetector; and wherein the images are generated by focusing the target area, the light region and the black region on the photodetector.

18. (Currently Amended) The method of claim 16, further comprising: ~~the step of~~ locating the light region and the black region~~s~~ in the images prior to generating ~~a~~ the at least one feedback signal.

19. (Currently Amended) The method of claim 16, wherein ~~each~~ the at least one feedback signal is determined as a function of average pixel intensity in the image of the light region ~~images~~ and average pixel intensity in the image of the black region images.

20. (Currently Amended) The method of claim 16, wherein the at least one feedback signal ~~X~~ of a color channel corresponds to X as ~~is~~ determined by

$$X = aV_w - bV_b$$

where V_w is measured pixel intensity in the image of the light region ~~images~~, V_b is measured pixel intensity in the image of the black region ~~images~~, and a and b are experimentally determined coefficients.

21. (Previously Presented) The chip of claim 12, wherein the light region includes a LMW tab on a scan head body, and wherein the scan head body provides the black region within the optical scanner.

22. (Previously Presented) The method of claim 16, wherein the light region includes a LMW tab on a scan head body, and wherein the scan head body provides the black region within the optical scanner.